STUDY PROJECT

The views expressed in this paper are those of the author and do not necessarily reflect the views of the Department of Defense or any of its agencies. This document may not be released for open publication until it has been cleared by the appropriate military service or government agency.

DECENTRALIZED COMMAND AND CONTROL--REALITY OR MYTH?

BY

LIEUTENANT COLONEL GEORGE H. RHOADES

DTIC
ELECTE
APR 18 1990
S   B   D

16 JANUARY 1990

U.S. ARMY WAR COLLEGE, CARLISLE BARRACKS, PA 17013-5050

90 04 16 021

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) Decentralized Command and Control-Reality or Myth?		5. TYPE OF REPORT & PERIOD COVERED
		6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) LTC George H. Rhoades		8. CONTRACT OR GRANT NUMBER(s)
9. PERFORMING ORGANIZATION NAME AND ADDRESS U.S. Army War College Carlisle Barracks, PA 17013-5050		10. PROGRAM ELEMENT. PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS		12. REPORT DATE 16 January 1990
		13. NUMBER OF PAGES 50
14. MONITORING AGENCY NAME & ADDRESS(If different from Controlling Office)		15. SECURITY CLASS. (of this report) Unclassified
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT (of this Report)

Approved for public release; distribution is unlimited.

17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

18. SUPPLEMENTARY NOTES

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

The debate concerning the required degree of command and control continues today. It is an age old argument that has intensified during this era of limited conflicts. The intent of this study is to demonstrate that decentralized command and control at the operational level of war is still possible in today's world. After a short introduction of the study, a brief discussion of command and control at the operational level of war orients the effort and defines the terms. Examining two reasonably

DD FORM 1473 1 JAN 73   EDITION OF 1 NOV 65 IS OBSOLETE

successful limited operations–Grenada and the Falkland Islands–will provide a basis for analyzing several factors that impact on the command and control process. The next step outlines the factors and analyzes the impact on the leadership during the operations. Finally, the analysis is used to draw conclusions revelant to decentralized command and control.

USAWC MILITARY STUDIES PROGRAM PAPER

DECENTRALIZED COMMAND AND CONTROL-REALITY OR MYTH?

AN INDIVIDUAL STUDY PROJECT

by

Lieutenant Colonel George H. Rhoades, FA

Colonel Robert F. Hervey, SC
Project Advisor

U. S. Army War College
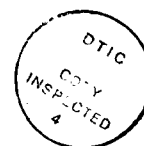Carlisle Barracks, Pennsylvania 17013
16 January 1990

ABSTRACT

AUTHOR: George H. Rhoades, LTC, FA

TITLE: Decentralized Command and Control-Reality or Myth?

FORMAT: Individual Study Projct

DATE: 16 January 1990 PAGES:47 CLASSIFICATION:Unclassified

The debate concerning the required degree of command and control continues today. It is an age old argument that has intensified during this era of limited conflicts. The intent of this study is to demonstrate that decentralized command and control at the operational level of war is still possible in today's world. After a short introduction of the study, a brief discussion of command and control at the operational level of war orients the effort and defines the terms. Examining two reasonably successful limited operations-Grenada and the Falkland Islands-will provide a basis for analyzing several factors that impact on the command and control process. The next step outlines the factors and analyzes the impact on the leadership during the operations. Finally, the analysis is used to draw conclusions revelent to decentralized command and control.

TABLE OF CONTENTS

DECENTRALIZED COMMAND AND CONTROL-REALITY OR MYTH?

CHAPTER I

INTRODUCTION

A raging debate, from the political scientist to the
military professional, concerning the required degree of
command and control for successful combat operations has been
evident throughout history.   What part does the political
leadership play in the conduct of war?   How much freedom of
action must be given the general in the field?   According to
Samuel Griffith, Sun Tzu described this dilemma over two
thousand years ago.   After translating his works, Griffith says
Sun Tzu's "concern with the relationship between a field
commander and the sovereign reflects his interest in
establishing the authority of the professional general."1   He
points out that Sun Tzu realized that "war is a matter of vital
importance to the state,"2 yet, "asserts that the general,
having received the mandate of command, is not required to obey
the orders of the sovereign blindly, but should act as
circumstances dictate."3   This suggests that there is indeed a
conflict of interest.   It also suggests the need for a balance
in determining the authority vested in the commander and that
of the politician.

Modern doctrine, in the U. S. Army, calls for decentralized
operations, yet, "civilian control over military campaigns has

been the rule rather than the exception in American history."4
How extensive the control and for what purpose has occupied
center stage in many a debate. It is often heard, even in
military circles, that campaigns have been planned in
Washington and sent to the field for execution. Has the Joint
Chiefs of Staff (JCS) become the central planning apparatus and
the Commanders in Chief (CINCs) relegated to simply following
orders? Is the JCS willing to take responsibility for military
operations to the point that U.S. forces are "forced to work in
an environment and to a plan imposed on them by JCS?"5

These questions appear to revolve around a central theme.
Perhaps there are better questions: Can decentralized command
and control ever be a reality in an era of limited conflict?
In an era of lightning escalation? In an era of weapons of
mass destruction? Some believe that the working relationship
developed between the Joint Chiefs and the political leadership
is the only link that keeps the military in the planning
process. They argue that because the Joint Staff has become so
close to the political leadership, they are the only military
leaders with the required degree of trust and confidence to be
allowed even a semblance of command and control authority.
Others argue that JCS's authority far exceeds their charter in
detailed planning and in the execution phase of military
operations. 6

It is, of course, well known that political objectives
drive the military objectives in planning for war. Clausewitz

pointed out that "the political object is the goal, war is the means of reaching it, and means can never be considered in isolation from their purpose."7 He further stated that "the probable character and general shape of any war should mainly be addressed in light of political factors and conditions."8 It is this character and shape of the war that generally pits the political and military leaders against each other. The aggressive use of force employed by the military is counter to the world of diplomacy used by the politician.

However, it is possible to infer that as a nation moves closer to total war, the political and military objectives are more compatible.9 For example, if the political objective is unconditional surrender of the enemy, the perceived need to centrally control the actions of the military will be reduced.10 "The nature of total war makes the military objective obvious; the enemy's ability to resist must be destroyed."11 To achieve this desired end, the political forces are more apt to leave the ways of accomplishing the end to the means employed-the military.12

On the other hand, in a limited war, with limited political objectives, the inverse is true.13 The political objectives can, and often do, clash with the pure warrior spirit of the military. Sherman's famous march through Georgia is an example of the military means clashing with the desired goal of the political objective. Although, as a military expediency, Sherman's tactics were correct and did contribute

to shortening the war; the destruction also created a lingering hatred for the North among the citizens of Atlanta. The end result was a delay in true unification of the United States. 14

Since, "it is indeed possible to 'win the war and lose the peace'," centralized command and control is often much more appealing during periods of limited conflict. 15 The pressures to centralize the command and control functions can be tremendous. The past forty years of history, without a total war effort, suggests that the political and military leaders will be faced with this problem in the foreseeable future.

The intent of this study is to demonstrate that decentralized command and control is still possible in today's world. By examining two reasonably successful limited operations-Falkland Islands and Grenada-it is possible to draw conclusions regarding the utility of decentralized command and control at the operational level of war. It has been said, "to concentrate on a few cases of 'decision making'-an approach often followed by political scientists-is to distort reality."16 However, a limited study of this nature can provide understanding as to the application of decentralized control.

4

ENDNOTES

1. Sun Tzu, The <u>Art of War</u>, translated by Samuel B. Griffith, p. 8.

2. <u>Ibid</u>.

3. <u>Ibid</u>.

4. Dennis M. Drew and Donald M Snow, <u>The Eagle's Talons: The American Experience in War</u>, p. 397.

5. James Adams, <u>Secret Armies</u>, Pp. 245-246.

6. Informal discussions with members of the U. S. Army War College class of 1990.

7. Carl von Clausewitz, <u>On War</u>, translated and edited by Michael Howard and Peter Paret, p. 645.

8. <u>Ibid</u>., p. 607.

9. <u>Ibid</u>., p. 645.

10. <u>Ibid</u>.

11. Drew and Snow, p. 239.

12. Clausewitz, p. 645.

13. <u>Ibid</u>.

14. Drew and Snow, p. 17.

15. <u>Ibid</u>., p. 8.

16. Martin van Creveld, <u>Command in War</u>, p. 12.

CHAPTER II

COMMAND AND CONTROL AT THE OPERATIONAL LEVEL OF WAR

Although books and manuals are plentiful on the subject of command and control, it is necessary to define the terms as used here. The term "command and control" is a familiar one, especially to professional military men and women. Yet, when asked to define the term, each will have a different version—usually one that is acceptable to them and one that conforms to the way they conduct business. Some will discuss the issue as a single entity, others will break the term into two components, and still others will add additional components, such as, communications or intelligence.

A close analysis reveals that command and control are two separate functions, although interrelated and to some degree interdependent. Command is an absolute term, where control, depending on the needs of the commander, can be highly centralized or decentralized. In its simplest form, command is the function of authority-directing forces for a specific mission or purpose. On the other hand, control is the function of limiting the forces; it establishes the conditions within which the directives are implemented. Thus, these definitions set up the premise that command dominates, and control, along with all other functions, flows from the authority of command.

When combined, the two functions become a process, often referred to as C2. This can be described as the process

employed by a commander in directing and controlling the forces. Assigning missions, establishing rules of engagement, and providing the commanders intent are all examples of this process. Similarly, adding other components change the process into a system; a system that, hopefully, provides the tools for the commander to effectively execute the command and control process. For example, adding the communications component provides the means to pass required information when assigning missions and is most often referred to as C3. The evolution continues as other components are added. Integrating the intelligence component into the system provides the commander additional information for decision making and also yeilds the term C3I. Obviously, the list is endless, and the potential for confusion is staggering. Although the basic understanding of these terms may not be so problematic in a service specific environment, it can be disastrous at the operational level of war during joint and combined operations.

Even the term operational level of war generates confusion. It has been linked with the size of the force, the intent of the force, and the level at which campaigns are fought. Defining the term can be difficult. For example, FM 100-5, the bible for U.S. Army operations, has all but dropped the term in favor of Operational Art. However, it does state that "operational art is the employment of military forces to attain strategic goals in a theater of war or theater of operations through the design, organization, and conduct of

campaigns and major operations. "1

Looking at it from a different prospective, Jeffery Record put forth this definition: "The operational level of war relates to the employment of specific military forces in pursuit of specific military objectives within a specific theater of operations. "2 Thus, he limits the definition to a broader understanding of the operation to be conducted, and at first glance, this definition appears superior. However, while a greater depth of knowledge may help to curtail confusion and is always desirable, the latter definition "does not mention the key element-strategic goals. "3 Therefore, a slight modification is still required.

For the purposes of this study, the definitions will conform to the most current doctrine available for unified and joint operations. Thus, the operational level of war will be based on JCS Test Pub 3-0 and determined by two factors. First, it must include the theater of war or a theater of operations, and secondly, campaigns or major operations to secure strategic goals must be the focus of the command. 4

Returning to the discussion of C2, JCS Pub 0-2 now defines command as "the authority that a commander in the military service lawfully exercises over subordinates by virtue of rank or assignment". 5 It further states that this "command authority provides the commander with the control necessary to accomplish the mission and thereby discharge assigned responsibility. "6 Thus, it establishes a relationship between

authority, control, and responsibility. This definition, in effect, is consistent with the earlier discussion of command and control.

In addition, a relatively new term, Combatant Command (COCOM), has also been added to JCS Pub 0-2. It describes the command authority vested in the CINCs by title 10 of the US Code. This is a powerful addition that not only clarifies but gives the CINCs an expanded role. It provides the necessary clout to be fully effective as the single command authority at the theater level of war and helps to ensure unity of command. Although COCOM did not exist during the invasion of Grenada in 1983, it becomes important when considering future conflicts as it firmly establishes the authority vested in the unified commander and the concept of unity of command. 7

At this point, it is also important to note that unity of command is essential at the operational level of war. In the joint arena, when the forces increase in size, complexity, and with different operating norms, the potential for confusion and uncertainty increases exponentially. When you add the language and culture barriers associated with combined operations, the problem is further complicated and command and control becomes more difficult. In order to be effective, subordinate elements must understand and carry out the commander's directives to accomplish the mission; at the same time, they must deal with a high level of ambiguity that works to undermine their efforts. Otherwise, the commander risks the loss of the additional

combat power generated by the efforts of the combined team. However, the commander has a wide range of options available to ensure successful command and control.

The command and control process can be centralized by issuing precise instructions, across a wide spectrum, to the subordinate elements. On the other hand, it can be decentralized by issuing broad instructions and relying on the subordinate commanders to fully understand the mission assigned. Still yet, a combination can be used depending on the needs of the commander. The process of choosing among these options brings us full circle to the question at hand. Is decentralized command and control a reality or a myth?

In order to determine whether decentralized command and control is practiced at the operational level of war, a basis for deciding the issue must be established. Throughout existing literature, several factors appear to directly impact on the command and control process. The same factors should be evident in the Grenada and Falkland operations and available for analysis. The extent to which factors favoring either centralized or decentralized operations are present, coupled with the actions of the commanders involved, should provide a basis for conclusions relevant to decentralized command and control. In chapter III, the actions of the operational commanders will be examined. This will provide a basis for analyzing a random selection of factors that impact on the command and control process.

ENDNOTES

1.   U. S. Department of the Army, <u>Field Manual 100-5</u>, p. 10 .

2.   Jeffery Record, "Operational Brilliance, Strategic Incompetence: The Military Reformers and the German Model, <u>Parameters</u>, Autumn 1986, p. 2.

3.   Discussions with Project Advisor, Robert F. Hervey, Col, Director, Command and Control Operations, USAWC.

4.   Joint Chiefs of Staff, Test Pub, <u>JCS Pub 3-0</u>, p. xiii.

5.   Joint Chiefs of Staff, <u>JCS Pub 0-2</u>, p. 3-1. Note: JCS Pub 1 is normally used for definitions, however, current edition is obsolete. Msg. R291626 Oct 87; Subj: <u>JCS Pub 0-2</u>, Unified Action Armed Forces (UNAAF)-Terminology approved definitions in <u>JCS Pub 0-2</u> pending change to <u>JCS Pub 1</u>.

6.   <u>Ibid</u>.

7.   <u>Ibid</u>., Pp. 3-9 thru 3-13.

CHAPTER III

COMPARISON OF OPERATIONS

Grenada (Operation Urgent Fury)

Just six short days after Maurice Bishop was executed and the former government of Grenada dissolved, forces landed to conduct the largest U. S. military operation since the Vietnam War. Although trouble had been brewing for several months, the events of October 1983 exploded throughout the U. S. government. With news of the U. S. invasion on every television screen, most Americans, including the majority of the military, were asking the same question: "Where?"[1]

The U. S. State Department had been keeping an eye on the general area since Bishop seized power in 1979.[2] "Although the United States could not have been gratified by this development in the eastern Caribbean, a socialist revolutionary coup on a distant island did not in itself draw American attention."[3] However, when this sleepy little island began to draw attention from the Soviets and Cubans, it also ensured that it would gain the attention of the Americans.

The Cubans led the way with military assistance and construction of a 9,800 foot airfield at Point Salines on the southwest corner of the island. By May 1980, the Soviets had signed a treaty giving them landing rights and began planning for a deep water port.[4] Seven other minor Soviet allies contributed significant assistance, based on bilateral secret

12

agreements."5 Support ranged from military equipment to health care assistance and continued at an alarming rate in the view of the U. S. government.

The Americans had also been busy in the diplomatic arena but without success. In fact, Bishop accused the United States of "trying to dictate Grenadian foreign policy in return for American Aid."6 However, since the people of Grenada firmly supported this government, U. S. officials continued efforts to improve relations. Although all efforts at diplomatic relations were rebuffed by Bishop and his colleagues, this proved to be a mute point. On 13 October 1983, Bishop was arrested and the government overthrown.

The people of Grenada responded by taking action to free Bishop from his captors only to have him recaptured and summarily executed, along with several of his supporters on 19 October. The new government immediately declared martial law and banned all travel to and from the island. 7 Tensions heightened within the U. S. government when American medical students were not allowed to leave and efforts by the U. S. Ambassador were repeatedly rejected by the new government.

Although there was some planning for a noncombatant evacuation of Americans from Grenada following Bishop's arrest on 13 October, actual planning for the invasion began four days prior to execution. 8 "On the morning of 20 October the JCS met to discuss what should be done."9 It was decided that "CINCLANT would have overall command of the operation," and

Admiral Wesley McDonald was notified to plan for an invasion. 10 It is this planning process that will be examined to determine the extent of command and control authority given to CINCLANT and his subordinates.

Although CINCLANT had been working on a plan to evacuate noncombatants from Grenada using Navy and Marine forces only, the expanded mission required a much larger force. The revised plan considered the importance of simultaneously seizing multiple targets on the island to ensure mission accomplishment. 11 Consequently, "the plan briefed by CINCLANT on Saturday, October 22nd, called for a combined service organization, designated Joint Task Force (JTF) 120, commanded by Vice Admiral Metcalf. "12 The total force ultimately reached a high of 5,000 U.S. Military and 300 Caribbean Peacekeeping Forces supported by the USS Independence Battle Group. 13

In the months that followed the invasion of Grenada, several critics leveled charges of meddling by higher authority in operational matters; specifically the operational level of war. It is generally agreed that the political objectives were clearly articulated early in the planning process and civilian interference held to a minimum. 14 On the other hand, James Adams maintains that the JCS was guilty of gross interference. He described a planning process in which CINCLANT and his staff "were forced to work in an environment and to a plan imposed on them by JCS. "15 He accused them of compromising the mission to allow all services an opportunity to prove themselves. 16 This

point was echoed in what later became Known as the "Lind Report". This report charged, "In what seems to have become the standard JCS approach to military operations, one that turns them into a pie-dividing contest among all the services, we ended up with a plan that allowed the enemy to put up a reasonably good show."17 Ultimately, the report resulted in a formal reply by the Chairman of the JCS.

General John W. Vessey Jr., Chairman of JCS, responded that "forces used in Urgent Fury were strictly chosen based on a military analysis of the mission, enemy, capabilities and the type of forces required, as well as rapid availability."18 Admiral Watkins amplified this point in testimony before congress. In responding to a question by Senator Tower about JCS involvement in the planning process, he stated that although they did make some recommendations they "were linked with the chain of command all the way."19 He said the recommendations were designed to "improve the Unified Commander's concept in view of the time involved", and "this was done, agreed to by the Unified Commander and the other principal subordinate commanders that had to work for him and carry out this operation on such short notice".20 General Wickham testified and echoed the comments of Admiral Watkins.21

Both sides of this issue are logical, and each has a degree of credibility. The pressure to get the job done in such a short time frame, along with the availability of units for special mission requirements, could easily have driven the

15

choice of forces.   In so much as the JCS was charged with
providing advice to the National Security Council, review and
even modification of the operational plan would appear to be
prudent oversight on their part.   But perhaps, the best
testimony of all comes from the operational level commanders.

Actually, there were two operational level commanders.
Admiral Wesley McDonald commanded at the theater of war level,
and Admiral Joseph Metcalf III commanded within the theater of
operations.   The degree of control delegated to each has been
questioned by many.   "It is interesting to note that the
President placed full operational control of the mission in the
hands of the office of the Joint Chiefs of Staff."22   This
action undoubtedly caused the JCS to be even more attuned to
the operational plan, however, General Vessey (Chairman, JCS)
is on record as supporting decentralized operations.   In
reference to C3, he described it as "a system disciplined by
the principle that flexibility and initiative be so delegated
that decisions are made at the lowest possible level."23   In
support of this concept, Admiral Wesley McDonald stated that
"Gen. (John W.) Vessey (JCS Chairman) gave me a job to do and
stepped aside-and he also gave his staff strict instructions to
stay off the line."24   Regardless of the accusations or the
actual amount of "help" provided, it is evident that Admiral
McDonald felt he had a great deal of freedom of action.

As the on-scene theater of operations commander, Admiral
Metcalf was charged with executing the concept of operations

provided by CINCLANT, Admiral McDonald.   He summarized the

mission assigned:

> -Conduct military operations to protect
> and evacuate U. S. and designated foreign
> nationals from Grenada
>
> - Neutralize Grenadian forces
>
> - Stabilize the internal situation
>
> - Maintain the peace. 25

He felt he had a "clear set of goals, priorities and

directives.   The 'how' of implementation was left to his own

judgement. "26   The rules of engagement (ROE) were equally broad

in nature and articulated clearly:

> -Use force and weapons as may be essential
> to the accomplishment of the mission
>
> -Minimize the disruptive influence of military
> operations on the local economy commensurate
> with the accomplishment of the mission
>
> -Execute initial tasks readily with minimum
> damage and casualties. 27

These ROE and the mission statement provided the basis for the

conduct of operations.   In the view of Admiral Metcalf, the ROE

were restrictive and presented the toughest challenge since

they required minimum force and minimum casualties.   He

considered them adequate to achieve success, although they

inhibited the broad use of firepower by his forces.   However,

he viewed the most important words to be "minimum casualties"

and designed his campaign with this foremost in his mind. 28

In reviewing the forces assigned for the mission, he saw

them as having assigned tasks that were consistent with their

capabilities and training. In fact, this aspect had "great appeal" to him as the executing commander. Although Admiral McDonald had retained command of the Caribbean Forces and other U. S. forces supporting the operation, Admiral Metcalf was in command of a highly diversified group. The JTF had elements from all the services plus units for special operations. This constituted a unique gathering of forces that would require exceptional coordination, yet there was little time for planning.

He knew that command and control would be critical, and he needed a simple command structure with clear lines of responsibility. The structure provided, when JTF 120 was formed, suited his needs and allowed him to extend the concept to his subordinates. A copy of the command structure is provided at appendix A. He also wanted it understood early-on that he would coordinate forces and assign mission type orders to get the job done. 29

Admiral Metcalf had seen, first hand, the tremendous pressure on the chain of command for information. He knew the American people, and therefore the leadership, would demand specifics on the operations. In order to maintain control, he organized his staff to ensure maximum delegation of authority down to him by higher headquarters. He accomplished this by devoting much of his personal time and allocating a large portion of his staff to keeping them informed. In effect, he established a bond of trust and confidence with higher

headquarters. He provided them detailed information on the current situation and his future intentions in a timely fashion and expected no less from his field commanders. 30 In addition to countless hard copy messages, Admiral Metcalf established a one man-one voice net with higher, passing two situation reports (SITREPS) per hour. 31 This undoubtedly increased his credibility and helped him maintain control.

From the beginning, he also attempted to establish and build the trust and confidence of his subordinates. Admiral Metcalf insisted on face-to-face meetings with his commanders on a daily basis. He also extended the delegation of authority and freedom of action. In his words, "my task was to direct and coordinate these forces, tell them 'what to do', and not 'how to do it. ' I dealt with the commanders of all services as 'professionals' who knew their jobs. "32

The battle for Grenada is now history. Going beyond this point would not significantly add to this discussion of the command and control process at the operational level of war. Suffice it to say, the American armed forces fought bravely and were successful. The following section describes the British experience in the Falklands.

FALKLAND ISLANDS COMPARED TO GRENADA

2 April 1983 marked the beginning of a nightmare for Argentina. The decision to invade the Falkland Islands and the South Georgia Island ended in military defeat, after a long,

bloody fight. The government cited the sovereignty of the Malvinas (the Argentinean name for the Falkland Islands) and a historical right of ownership as reasons for their actions. 33

There was more than ownership at stake for the British. The Argentine actions were an affront to their national pride and "awakened the warrior spirit of their British victims. "34 Although enraged and making feverish preparations for war, the British government continued to seek a diplomatic solution.

Unlike the Americans during the Grenada invasion, the British were slow to use decisive military power to end the struggle. The first order of business was to secure a UN demand for Argentine withdrawal, to "legitimize" Britian's response. 35 Diplomats were busy on all fronts and raced against time. "The sending of the task force by Mrs. Thatcher gave them a respite of just fifty days. "36 Right up until the end, a general feeling prevailed that Argentina would withdraw their forces in the face of strong British resolve. Although diplomacy failed, Mrs. Kirkpatrick later compared "British diplomacy with American amateurism. "37 And one senior U. S. delegate referred to the overwhelming support of the UN as "a stunning example of sheer diplomatic professional'sm. "38

However, there were a few who knew that war was inevitable or as the Sunday Times later called it, "The war that had to be. "39 Admiral Sir Henry Leach, the First Sea Lord and Chief of the Navy Staff, was one of the first to reach this conclusion. He immediately realized that it would ultimately

20

be "exclusively a navy matter."[40] He also saw an opportunity

to regain the ground lost by the British Navy due to economic

pressure. On 29 March, prior to the invasion, he instructed

the Commander in Chief Fleet, Sir John Fieldhouse, to begin

planning for a "balanced" task force to retake the islands.[41]

Mrs. Thatcher had already decided to depend on a select

group for advice, later known as the war cabinet, rather than

the full wartime contingency machinery.[42] Although "the chiefs

of staff and defence bureaucracy were continuously, carefully

consulted,"[43] the war cabinet depended on Sir Terence Lewin,

recently appointed Chief of the Defence Staff, for military

advise.[44] His position closely paralleled that of the

American's Chief of the Joint Staff. In effect, a simple chain

of command was evolving. See appendix 2 for command structure.

As tension heightened and the prospect of war increased,

the chain of command narrowed. "There was little concealing

the fact that the chiefs of staff, including even Leach

himself, were being sidetracked by the exigencies of the

operation."[45] "Most decisions were taken on closed circuit

between the cabinet, Sir Terence Lewin and Sir John

Fieldhouse."[46] Indeed, a strong bond of trust between Lewin

and both the Prime Minister and Fieldhouse, kept the chain of

command simple and direct throughout the conflict. Decisions

would flow from the government through Lewin to Fieldhouse and

ultimately to the task force.[47] The simplicity of design

could well be the model for the American system employed during

the invasion of Grenada.

21

Admiral Fieldhouse headquartered at Northwood, a suburb of London, was already busy with contingency plans at the operational level of war. Following the initial discussion with Admiral Leach, he decided to give Rear Admiral John Woodward, Commander First Flotilla, responsibility for leading the task force. Although there was some concern due to his rank, Admiral Fieldhouse expressed full faith in Admiral Woodward's ability to command the task force. He convinced the leadership that this was the best decision, especially since the First Flotilla was already at sea. 48

With the chain of command established, Admiral Fieldhouse turned his considerable talents to finding the means for sending a task force south. He knew that time was short, the means lacking, and a final decision by the political leadership to send the task force was missing. Nevertheless, once full scale planning was underway, cooperation among the defense community was astonishing. The chiefs of staff, especially Admiral Leach, played an important role, however, there was little doubt that "final decision-making lay firmly with Fieldhouse at Northwood. "49 "In the end, a task force of 28,000 men and 100 ships were assembled, the largest British armada since World War 2. "50

Compared to the decision to invade Grenada, the British adopted a slow approach. John Laffin described the government action as "a careful step-by-step approach, a creeping invasion. "51 However, when Mrs. Thatcher finally ordered the task force to sail, there was full political support for the

action. She stated the objective as "to see the islands

returned to British Administration."52 The only constraints

placed on the military, loosely translated as rules of

engagement, were:

> -casualties be kept to a minimum
>
> -no bombing of Argentine mainland
>
> -Final decision to invade (though not its
> tactical timing) would be a political
> decision. 53

The broad mission and ROE established by the British are

similar to those provided the American commanders in Grenada.

The limits imposed by the political leadership allowed ample

freedom of action by the military to ensure success. Once

committed, like the American leadership, "Mrs. Thatcher at no

time tried to be the commander at sea or in the field and saw

to it that her Defence Secretary kept out of tactical decision-

making."54

Although Task Force Falklands was in the process of moving

to the South Atlantic, the British still clung to the hope for

a more peaceful solution. The task force was seen primarily as

a show of force, to cause the Argentine forces to withdraw.

This did not cause the military undue concern. Most of the

planning time had been consumed by finding the necessary forces

and equipment to field the task force in the first place. Much

like the Americans found in preparing for Grenada, the choice

of forces was dictated as much by availability as suitability.

They now needed time to finalize the invasion plans. 55

Admiral Fieldhouse chose to remain at Northwood, 8,000 miles from the eventual battle. He, like Admiral McDonald in the Grenada operation, delegated much of the action to his on-scene commander. Admiral Woodward was directed to set-up a 200 mile exclusion zone around the Falkland Islands and establish a blockade. Initially, he was given command of all forces, except submarines and some limited Logistical forces, and reported directly to Admiral Fieldhouse. 56

As the war progressed and land combat became necessary, the on-scene command splintered into four elements; command of naval, land, amphibious, and submarine forces fell to independent commanders reporting directly to Admiral Fieldhouse. This was later seen as a possible breach in the concept of unity of command. In addition, the communications requirements became staggering. The British established both voice and hard copy nets, and with the help of the Americans, passed 200,000 hard copy messages to keep the chain of command informed. 57 Although the situation improved when Major General Jeremy Moore, senior in rank, was given command of the land forces, the American solution of establishing a single on-scene commander gave them an edge on the battlefield. 58

The battle itself is history. The British fought bravely and like their American counterparts, they were successful. The next step, having examined the Grenada and and Falkland operations, is to determine the impact of selected factors on the corresponding command and control arrangements.

ENDNOTES

1. Daniel P. Bolger, <u>Americans at war, 1975-1986: an era of violent peace</u>, p. 262.

2. <u>Ibid.</u>, p. 264.

3. <u>Ibid.</u>, p. 265.

4. <u>Ibid.</u>, Pp. 267-268.

5. <u>Ibid.</u>, p. 267.

6. <u>Ibid.</u>, Pp. 265-266.

7. <u>Ibid.</u>, Pp. 270-274.

8. Stephen E. Anno and William E. Einspahr, <u>Command and Control and Communications Lessons Learned: Iranian Rescue, Falklands Conflict, Grenada Invasion, Libya Raid</u>, p. 38.

9. James Adams, <u>Secret Armies: Inside the American, Soviet and European Special Forces</u>, p. 220.

10. Anno and Einspahr, p. 38.

11. Peter M. Dunn and Bruce W. Watson, <u>American Intervention in Grenada</u>, p. 101.

12. <u>Ibid.</u>

13. Anno and Einspahr, p. 37.

14. Joseph Metcalf, Vice Admiral, USN, "Decision Making and the Grenada Rescue Operation," in <u>Ambiguity and Command</u>, ed. by James G. March and Roger Weissinger-Baylor, p. 278.

15. Adams, Pp. 245-246.

16. <u>Ibid.</u>, p. 220.

17. Benjamin F. Schemmer, "JCS Reply to Congressional Reform Caucus' Critique of the Grenada Rescue Operation," <u>Armed Forces Journal International</u>, July 1984, p. 13.

18. <u>Ibid.</u>

19. US Congress, Senate, Committee on Armed Services, <u>Organization, Structure and Decisionmaking Procedures of the Department of Defense</u>, p. 330.

20. <u>Ibid.</u>

21. Ibid., p. 331.

22. Richard A. Gabriel, "Military Incompetence: Why the American Military Doesn't Win," in Guide for Case Study: The JCS Crisis Action System and the Grenada Operations, Academic Year 1986-87, p. 99.

23. John W. Vessey Jr., General, "Command Effectiveness and C3," in Course 3, Implementing National Strategy Selected Readings, Vol II, Academic Year 1990, p. 327.

24. Wesley McDonald, Admiral, USN, "McDonald reviews C3I During Grenada Operations," in Guide for Case Study: The JCS Crisis Action System and the Grenada Operations, Academic Year 1986-87, p. 91.

25. Metcalf, p. 281.

26. Ibid.

27. Ibid.

28. Ibid.

29. Ibid., p. 283.

30. Ibid., p. 283-285.

31. Ibid., p. 318.

32. Ibid., p. 279.

33. Anno and Einspahr, p. 19.

34. John Laffin, Fight for the Falklands!, p. 4.

35. Max Hastings and Simon Jenkins, The Battle for the Falklands, p. 99.

36. Ibid.

37. Ibid., Pp. 100-101.

38. Ibid., p. 101.

39. Laffin, p. 163.

40. Hastings and Jenkins, p. 71.

41. Ibid., Pp. 60-61.

42. Ibid., Pp. 80-81.

43. <u>Ibid</u>., p. 329.

44. <u>Ibid</u>., p. 106.

45. <u>Ibid</u>.

46. <u>Ibid</u>., p. 329.

47. <u>Ibid</u>.

48. <u>Ibid</u>., Pp. 82-83.

49. <u>Ibid</u>.

50. Anno and Einspahr, p. 19.

51. Laffin, p. 79.

52. Hastings and Jenkins, p. 80.

53. Laffin, P. 98-99.

54. <u>Ibid</u>.

55. Hastings and Jenkins, Pp. 80-85.

56. Anno and Einspahr, Pp. 24-25.

57. <u>Ibid</u>., p. 29.

58. Hastings and Jenkins, Pp. 270-275.

CHAPTER IV

ANALYSIS OF FACTORS AND THE
COMMAND AND CONTROL PROCESS

Although the factors chosen are not totally inclusive,
they should be sufficient to guide this effort. They serve the
purpose of analyzing the discussion of C2 in the Grenada and
Falkland Islands operations. Since the factors highlight
concerns that must be dealt with by the commander, it is
important to analyze their relationship to the actions taken
during the operations. The degree of impact of such factors
can be crucial for successful operations and should provide a
basis for conclusions relevant to decentralized command and
control.

Quest for Certainty

There are many factors that influence the tendency to
centralize control. However, some can be viewed like a two-
sided coin. On one side, the tendency is pulled toward
centralization. On the other, it generates the opposite
effect. In describing one such factor, Martin van Creveld
coined the term "Quest for Certainty. " In attempting to cope
with the inherent uncertainty in war, the unknown and
assumptions, there are two basic options in his view.
Centralize the decision-making process at the top to gain
"superior control", or decentralize the process and spread the
uncertainty across a broader base to prevent an overwhelming

28

effect.   Although both are viable options, the latter seems to

be the preferred choice.   In effect, centralization allows the

commander greater control; thereby providing a measure of

certainty, but, it also tends to impede the initiative of

subordinates and prevent their full participation.   On the

other hand, decentralization tends to reduce the uncertainty at

the top by reducing the burden.   This allows the commander to

concentrate his efforts on the most critical tasks. 1

As in all wars, the level of uncertainty was high during

the Grenada and Falkland Islands operations.   Both pushed the

government decision making apparatus to extreme limits,

primarily due to time constraints.   The British government,

like the Americans, relied on the theater commander to plan and

conduct military operations.   This allowed the political

leadership to concentrate their efforts on a successful

political outcome.   The CINCs, Admiral McDonald and Admiral

Fieldhouse, also gave their on-scene commanders freedom of

action through mission type orders.   This allowed them to

coordinate the remaining forces and to sustain the fight

without interference from above.   It is noteworthy that both on-

scene commanders, but particularly Admiral Metcalf, were

acutely aware of the necessity to report, report, report to

their seniors. By doing so, they lessened the political level's

quest for certainty.   In both operations, then, the "quest for

certainty" appears to have been dealt with through

decentralization.

Trust and Confidence in Subordinates

This is another two-sided factor that directly influences command and control. It is self-evident that a lack of trust and confidence inevitably leads to centralized control. Conversely, freedom of action is enhanced when trust and confidence exists at a high level. Ultimately, as in all military operations, decentralized command and control depends on the trust and confidence placed in the chain of command and the subordinates elements.

The bond established by trust and confidence is clearly present in both operations. In fact, the on-scene commander for the Americans, Admiral Metcalf, based his campaign largely on this factor. It is also apparent that the senior leadership on both sides were influenced by this factor. The choosing of the British War Cabinet, and the faith displayed by President Reagan in the Chairman of the Joint Chiefs of Staff point to a high degree of trust and confidence. Again, the senior leadership's willingness to allow the theater commanders to plan and conduct the operations without undue interference was clearly demonstrated. Additionally, the organizations established to conduct operations imply a great deal of freedom of action at the operational level of war. A simple, responsive command structure, with clear lines of responsibility, appears to have been a major contributor for keeping the trust and confidence high throughout both operations.

Fear of Escalation

The vast increase in capabilities and destructive power of modern weapons of war has led to increasing pressure for centralized control of operations by the senior military and political leadership. Although, the ultimate control, national command authority, came with the nuclear age, fear of escalation can be found in conventional war as well. Decisions that are tactically sound, to defeat a specific enemy, may inadvertently arouse the ire of another nation. Therefore, the pressure to establish limits and centralize the command and control can be tremendous.

Although the commanders enjoyed a high level of freedom of action, this is not to say that restrictions were not placed on the military. In fact, in addition to limiting the options of the commanders, the British opposition to bombing the mainland of Argentina, and the American's concern with the broad use of firepower smacks of fearing further escalation. The British hoped for a quick withdrawal, based on a show of force, and bombing the homeland would almost certainly ensure a fight and heighten tensions across the region. Likewise, the Americans were undoubtly influenced by Soviet and Cuban presence on the island, and they attempted to limit the impact through the rules of engagement. In both cases, the potential for escalation beyond the initial combatants was possible. The senior leadership responded responsibly and effectively without undue restrictions or centralized command and control.

Communications

No single factor has had a greater influence on the centralization tendency than communications. Today, authorities in Washington can virtually dictate directly to a field commander anywhere in the world. The commander can also effectively communicate and control forces over large distances. As the communications capability increased, the tendency to centralize the decision making process also grew. Michael Deane points out, "from a technological perspective, therefore, communications trends seemed to open new paths towards stronger C2 centralization."2

Although the communications factor favors centralized command and control, the opposite effect was evident in both operations. It appears that maintaining freedom of action can be linked to the communications capability enjoyed by the Americans and the British. The chain of command was fully utilized to pass instructions to the field and remained a vital element throughout the operations. Undoubtedly, keeping the leadership informed in a timely manner played an important role in precluding high level involvement in operational and tactical direction. Both operations generated heroic efforts in this regard. This can be seen in the tremendous number of messages sent up the chain of command and the broad spectrum of information reported by both CINCs. In essence, their efforts to keep higher headquarters informed effectively countered the tendency to centralize command and control via encompassing communications networks.

History and Precedence--The Human Dimension

There are two points that should be made from a historical perspective. First, history supports decentralized command and control. Turning again to an eminently qualified historian, Martin van Creveld, "The fact that, historically speaking, those armies have been most successful which did not turn their troops into automatons, did not attempt to control everything from the top, and allowed subordinate commanders considerable latitude has been abundantly demonstrated."3 Second, great armies have been led by great generals. Napoleon Bonaparte said, "it was not the legions which crossed the Rubicon, but Caesar."4 In this one short statement, he summed up the practice of command and control at all levels. At the very heart of the system is a human being-the commander. And to be effective, the commander requires training, education, and the opportunity to grow. Decentralization provides the capability to fully develop and then exploit this potentially great asset.

As for history, both operations will add to the number of successful outcomes that utilized the technique of decentralization. The comments of the leadership in both operations echo those of Martin van Creveld. But more importantly, their actions demonstrated a willingness to adhere to the precedence set by history. They did not attempt to control everything from the top and worked hard to ensure considerable latitude was given to those with the responsibility for conducting the operations. Perhaps their

actions will even serve as a catalyst in preparing future
commanders for decentralized operations.

Unit Survivability

The intensity of the modern battlefield, driven by the
range and lethality of weapons, raised concerns of unit
survivability. As the enemy's capability to respond quickly
with massed fires across large distances improved, the
potential size of the battlefield grew in response to the
threat. Commanders at all levels perceived the need to move
frequently and spread their units over greater distances. As
units were dispersed to reduce the potential for destruction by
a single attack, command and control became more difficult.
Although decentralization solved this problem, tactical
decisions began to impact at the operational level. The
ability to mass units quickly at the decisive time and place
became more problematic due to dispersion. This presented the
operational level commander with a tremendous challenge.
Although the idea of unit dispersion did allow for a greater
degree of protection, the inability to respond quickly across
the battlefield was in conflict with the principle of mass.
Again, technology came to the rescue. Units became more mobile
and could rapidly respond when called upon. The ability to
move large numbers of troops, over long distances with speed
and efficiency, became a reality with improved transportation
systems. This allowed the commanders to compensate for unit

dispersion, and a beneficial side effect was created—decentralization became more palatable. Turning again to Michael Deane, he points out that, "transportation and weapon trends appeared to call for greater C2 decentralization."5

The survivability factor is difficult to measure in the Grenada and Falkland Islands operations. Ultimately, the British were spread over 8000 miles, and the American lines of communications stretched to the Caribbean. Yet, this factor did not play a significant role. If anything, the tendency was to centralize the command and control, especially at the beginning of the operations. In the initial planning of both operations, the involvement of the Chiefs of Staff may be viewed as a tendency toward centralization. Because time was short—the deployment critical—the chiefs were concerned with their ability to mass units at the decisive time and place. However, once the operations got underway, the decision making was left more to the CINCs and their on-scene commanders. The theaters of operations for the land battle were limited in size and it appears that unit dispersion was not a major concern. In any case, this factor was not cited directly as a major concern by the leadership.

Initiative

Finally, any discussion of the factors favoring either centralized or decentralized command and control would be incomplete without reference to initiative. Authority to

make decisions is inherent in the principle of gaining the initiative. In the words of General Vessey, "we must allow commanders the necessary rattle-room to exploit the situation or to resolve problems under a system in which orders are given as broad descriptions of the intended outcome."6 He further stated that C3 "is a system disciplined by the principle that flexibility and initiative be so delegated that decisions are made at the lowest possible level."7 To be fully effective, initiative should be coupled with decentralized operations.

It is clear that the actions of the senior leadership in both operations did not unduly restrict the initiative of the CINCs. The missions and rules of engagement were stated in broad terms, allowing the commanders ample latitude to conduct successful operations. At the operational level, mission type orders were issued and the planning and execution left to subordinate commanders. The theater commanders allowed the on-scene commanders to plan and conduct local campaigns within the theater of operations. Admiral Metcalf's testimony is absolutely clear on this point. In both operations, it appears that the on-scene commanders were delegated the authority to respond quickly to changing conditions. This decentralized command and control allowed them to exercise their initiative, and ultimately, to win.

ENDNOTES

1.   Martin van Creveld, <u>Command in War</u>, Pp. 264-268.

2.   Michael J. deane, "Current Soviet Philosophy of Command and Control," in <u>Course 3, Implementing National Military Strategy Selected Readings, Vol. II, Academic Year 1990</u>, P. 359.

3.   Creveld, P. 270.

4.   <u>Ibid.</u>, P. xi.

5.   Deane, P. 359.

6.   John W. Vessey, General, "Command Effectiveness and C3," in <u>Course 3, Implementing National Military Strategy Selected Readings, Vol. II, Academic Year 1990,</u> P. 328.

7.   <u>Ibid.</u>

CHAPTER V

LESSONS LEARNED/CONCLUSIONS

It is obvious that decentralized command and control existed at the operational level of war in both operations. Appropriate conclusions include the following.

SIMPLE COMMAND STRUCTURE

Effective command and control is a critical element in any military operation; likewise, simplicity is a long honored principal of war. In combination, they become powerful allies. Both the Americans and the British took full advantage of a simple command structure. In addition, they worked hard to maintain it throughout the conflicts. The bottom-line is that a command structure based on simplicity works.

DECENTRALIZED COMMAND AND CONTROL

Unity of command depends on the commander having the authority to coordinate and direct forces to achieve a specific goal. Delegation down to the lowest level capable of providing overall direction to the force should be consistently applied. The on-scene commander is normally in the best position to respond quickly and accurately to changing conditions and as such, should be delegated the authority to act. Both operations contained this feature of command and control. In fact, the British operation consisted of multiple on-scene

commanders in the theater of operations and at one point, multiple operations without unity of command.1   This was a result of co-equal commanders not being able to agree and was only rectified when Major General Jeremy Moore was dispatched as the senior commander.   The Americans, on the other hand, fared a little better. However, a failure to fully coordinate special operations, by the on-scene commander, resulted in independent operations in some cases.2   Interoperability problems prevented full tactical coordination.   Regardless of these temporary lapses, the overall operations were successful. The bottom-line is that the authority vested in the on-scene commanders played a vital role in the success of both operations.

KEEP HIGHER HEADQUARTERS INFORMED

Nothing will discourage autonomy of command faster than Keeping the boss in the dark.   It appears that the British and Americans both understood this concept completely.   The British established a communications net using voice as the primary mode of operations.   However, they also passed 200,000 hard copy messages, at a rate of 800 a day.3   Although the Americans had some moderate difficulty in the tactical communications field, they did manage to Keep voice reporting nets in operation.   The on-scene commander ensured his staff gave priority to information flowing up the chain.   In addition, he established a one man-one voice net, passing two SITREPs per

39

hour, to lend credibility. 4   It may sound like overkill, but
the on-scene commanders enjoyed considerable freedom of action.

NOTHING TAKES THE PLACE OF PLANNING

Planning time was a critical factor in both operations.
Although the British had an almost impossible task of putting a
suitable force to sea on short notice, they accomplished the
feat with great skill and only one day behind schedule.   Most
of the planning was done once the task force left port. 5   In
most cases, it appears that the people that planned each
operation also executed it.   Similarly, the Americans were
pressed for time.   The shorter distance to the battlefield
meant that the shooting would start sooner.   Like the British,
the Americans applied great skill once the operation got
underway.   However, one major problem did exist during the
Grenada operation.   The Americans failed to provide adequate
expertise, for joint operations, to the staffs of higher
headquarters.   The CINCLANT Staff was predominately Navy, and
the JTF 120 Staff was formed around an existing Naval Command.
This resulted in a critical shortage of army and air force
capability for detailed planning.   The reasons most often cited
are operational security considerations and the limited time
available to assemble additional people.   The result was less
than optimum planning. 6

TRUST AND CONFIDENCE IN SUBORDINATES

There are many references to this factor at all levels. It is apparent that trust and confidence is required throughout the command, whether in the planning stage (OPSEC) or execution. Unity of command and team work cannot be a reality without it. Trust and confidence requires a working relationship that is only built through close association and training. For those that look forward to commanding and expect decentralization without trepidation, perhaps this is a lesson worth learning.

Although there are many factors that influence the decision making process, these conflicts clearly show the use of decentralized operations. In the final analysis, command and control is, and will always be, a commander's problem. Thus, the true lesson found here implies that commanders must be prepared to conduct decentralized operations. And to be successful, effective decision making is an art that must be developed and practiced. The U. S. Army would be well served by training junior officers to make their own decisions early-on. The future of the U. S. Army may well depend on its ability to fully develop and exploit this art on the modern battlefield.

ENDNOTES

1.   Stephen E. Anno and William E. Einspahr, <u>Command and Control and Communications Lessons Learned: Iranian Rescue, Falklands Conflict, Grenada Invasion, Libya Raid</u>, p. 64.

2.   Joseph Metcalf, Vice Admiral, USN, "Decision Making and the Grenada Rescue Operation", in <u>Ambiguity and Command</u>, ed. by James G. March and Robert Weissinger-Baylor, Pp. 284.

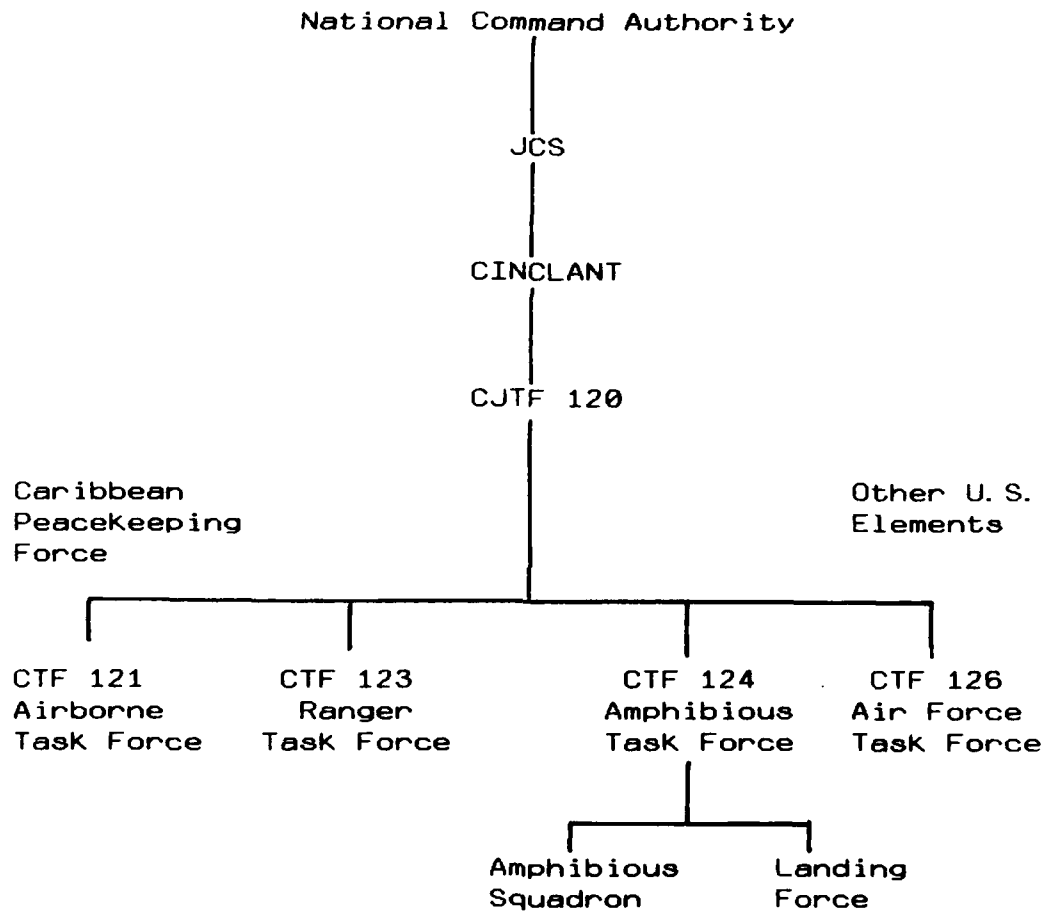3.   Anno and Einspahr, p. 29.

4.   Metcalf, p. 318.

5. Max Hastings and Simon Jenkins, <u>Battle for the Falklands</u>, p. 318.

6. Anno and Einspahr, p. 46.

APPENDIX 1

COMMAND AND CONTROL ORGANIZATION, GRENADA

National Command Authority

JCS

CINCLANT

CJTF 120

Caribbean
PeaceKeeping
Force

Other U. S.
Elements

| CTF 121
Airborne
Task Force | CTF 123
Ranger
Task Force | CTF 124
Amphibious
Task Force | CTF 126
Air Force
Task Force |

Amphibious
Squadron

Landing
Force

Stephen E. Anno and William E. Einspahr, Command and Control
and Communications Lessons Learned: Iranian Rescue, Falklands
Conflict, Grenada Invasion, Libya Raid, p. 75.

APPENDIX 2

COMMAND AND CONTROL ORGANIZATION, FALKLANDS

Prime Minister and Cabinet
|
Chief of Defence Staff
|
Commander, Task Force Falklands
(C-in-C of Fleet)

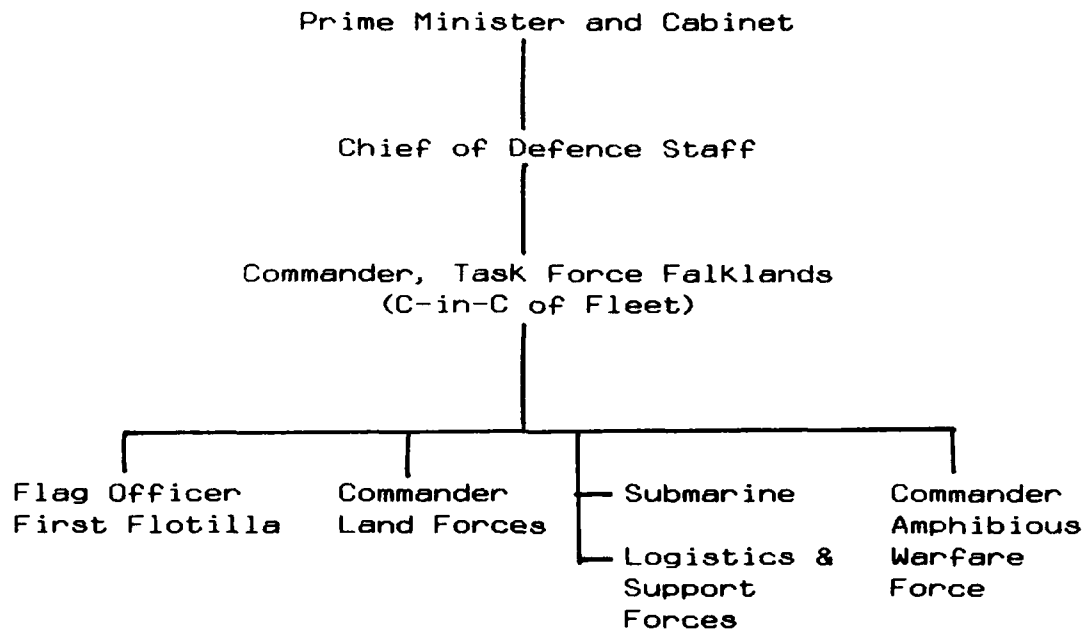| Flag Officer First Flotilla | Commander Land Forces | — Submarine
— Logistics &
Support
Forces | Commander Amphibious Warfare Force |

Stephen E. Anno and William E. Einspahr, <u>Command and Control and Communications Lessons Learned: Iranian Rescue, Falklands Conflict, Grenada Invasion, Libya Raid</u>, p. 74.

44

BIBLIOGRAPHY

1. Adams, James. Secret Armies: Inside the American, Soviet and European Special Forces. New York: Atlantic Monthly Press, 1987.

2. Anno, Stephen E.,COL., and Einspahr, William E., LTC. Command and Control and Communications Lessons Learned: Iranian Rescue, Falklands Conflict, Grenada Invasion, Libya Raid. Thesis. Maxwell Air Force Base: Air War College, May 1988.

3. Atkeson, Edward B. "The Operational Level of War." Military Review, Vol. 67, March 1987, Pp. 28-36.

4. Bolger, Daniel P. Americans at war, 1975-1986: an era of violent peace. Novato: Presidio, 1988.

5. Clausewitz, Carl von. On War. Translated and Edited by Michael Howard and Peter Paret. Princeton: Princeton University Press, 1963.

6. Creveld, Martin Van, Command in War. Cambridge: Harvard University Press, 1985.

7. Devlin, Michael R. and Shadid, Theodore M. "Joint Command-The Operational Level of War." Field Artillery Journal, Vol. 53, March-April 1985, Pp. 36-39.

8. Drew, Dennis M., and Snow, Donald M. The Eagle's Talons: The American Experience at War. Maxwell Air Force Base: Air University Press, 1988.

9. Drummond, Raymond R. The Unified Command and Unity of Command, Fort Leavenworth: US Army Command and General Staff College, School of Advanced Military Studies, 1986.

10. Dunn, Peter M. and Watson, Bruce W. American Intervention in Grenada. Boulder: Westview Press, 1985.

11. Hastings, Max and Jenkins, Simon. THE BATTLE FOR THE FALKLANDS. New York: W. W. Norton and Company, 1983.

12. Laffin, John. Fight for the Falklands. New York: St. Martin's Press, 1982.

13. Lind, William S. The Grenada Operation: Report to the Congressional Military Reform Caucus. Washington: Military Refrorm Institute, 1984.

14.   Joint Chiefs of Staff.   JCS Pub 0-2: Unified Action Armed Forces (UNAAF).   Washington: December 1986, with change 1, dated April 1989.

15.   Joint Chiefs of Staff.   JCS Test Pub: Doctrine for Unified and Joint Operations.   Washington: January 1990.

16.   March, James G., and Weissinger-Baylon, Roger. Ambiguity and Command.   Marshfield: Pitman, 1986.   Pp. 277-297:   "Decision Making and the Grenada Rescue Operation," by Joseph Metcalf III.

17.   Marcella, Gabriel.   The Malvinas/Falklands conflict of 1982:   policy lessons for the United States and Latin America. Washington: Inter-American Defense College, 1983.

18.   McMichael, Scott R.   "Urgent Fury: Looking Back and Looking Forward."   Field Artillery Journal, Vol. 53, March-April 1985, Pp. 8-13.

19.   Record, Jeffery.   "Operational Brilliance, Strategic Incompetence: The Military Reformers and the German Model." Parameters, Vol. XVI, No. 3, Autumn 1986, Pp. 2-8.

20.   Schemmer, Benjamin F.   "JCS reply to Congressional Reform Caucus' Critique of the Grenada Rescue Operation." Armed Forces Journal International, July 1984, Pp. 13-16.

21.   Sun Tzu, The Art of War.   Translated and Edited by Samuel B Griffith.   London: Oxford University Press, 1963.

22.   U. S. Air University.   Air War College.   Guide for Case Study: The JCS Crisis Action System and the Grenada Operations, Academic Year 1986-87.   Maxwell AFB: n. d. Pp.   96-101:   "Military Incompetence: Why the American Military Doesn't Win," by Richard A. Gabriel.

23.   U. S. Air University.   Air War College.   Guide for Case Study: The JCS Crisis Action System and the Grenada Operations, Academic Year 1986-87.   Maxwell AFB: n. d. Pp.   91-95:   "McDonald Reviews C3I During Grenada Operations," by Admiral Wesley McDonald.

24.   U. S. Army War College.   Course 3, Implementing National Military Strategy Selected Readings, Vol. I, Academic Year 1990.   Carlisle Barracks: 1990.   Pp. 38-45:   "Defense Reorganization Making Interoperability and Jointness a Way of Life," by Robert T. Herres.

25.   U. S. Army War College.   Course 3, Implementing National Military Strategy Selected Readings, Vol. II, Academic Year 1990.   Carlisle Barracks: 1990.   Pp. 327-331:   "Command Effectiveness and C3," by John W. Vessey.

26. U.S. Army War College. <u>Course 3, Implementing</u>
<u>National Military Strategy Selected Readings, Vol. II, Academic</u>
<u>Year 1990.</u> Carlisle Barracks: 1990. Pp. 359-380: "Current
Soviet Philosophy of Command and Control," by Michael J. Deane.

27. U.S. Army War College. <u>Course 3, Implementing</u>
<u>National Military Strategy Selected Readings, Vol. II, Academic</u>
<u>Year 1990.</u> Carlisle Barracks: 1990. Pp. 438-456: "Command,
Control and Technology," by I. B. Holley, Jr.

28. U.S. Congress, Senate, Committee on Armed Services.
<u>Organization, Structure and Decisionmaking Procedures of the</u>
<u>Department of Defense.</u> Hearings, 98th Cong., 1st Sess.
Washington: Government Printing Office, 1983.

29. U.S. Department of the Army. <u>Army Regulation 22-103:</u>
Leadership and Command at Senior Levels. Washington: 21 June
1987.

30. U.S. Department of the Army. <u>Army Regulation 100-5:</u>
Operations. Washington: 5 May 1987.